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Bobbowski et al.

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[54] **CONTINUOUS HINGE WITH IMPROVED BEARING DESIGN**

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[52] **U.S. Cl.** **16/354**; 16/273; 16/234

[58] **Field of Search** 16/234, 273, 354

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[57] **ABSTRACT**

An extruded hinge with a multiplicity of bearing assemblies spaced along its length has a pair of abutting hinge leaves with mounting portions and pivot portions with convexly arcuate surfaces extending along their abutting edges and intermeshing gear teeth extending along the length thereof. The pivot portions have channels in their surfaces opposite the arcuate geared surface, and the hinge leaves have pairs of axially offset, opposed cooperating cutouts extending through the pivot portions. These cutouts provide a center portion in which the cutouts are aligned and recesses at the axial ends thereof in opposite hinge leaves. An elongated lateral bearing member has a cavity therewithin which receives the pivot portions, and it has opposed flanges at its free ends, which extend into the channels of the pivot portions to lock the hinge leaves in assembly. In each of the cutouts is a bearing block with a body portion disposed in the center portion of the cutouts and axially projecting portions at each end disposed within the recesses defined by the cutouts. The bearing block has channels along its sides which seat the bearing member flanges. Bearing caps are disposed in the cutouts between the ends of the body portion of the bearing block and the adjacent pivot portions of the leaves, and they are engaged with their respective pivot portions and pivotable therewith.

24 Claims, 5 Drawing Sheets